

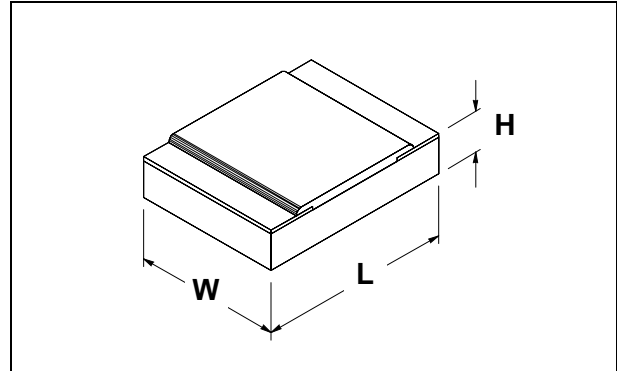
# Model 114 Model 114R (RoHS Compliant)



## High Megohm Micro Miniature Chip Resistor

**Model 114** High Megohm Micro Miniature Chip Resistor has thick film gold terminals fired to one side of a ceramic chip at about 900°C. The resistive glass does not contain any organic materials and is applied as a continuous film so exposure in hard vacuum environments will not create any problems due to outgassing.

Thick film gold terminals are suited for ultrasonic ball bonding of gold wire or TC bonding using gold or aluminum wire.



### Applications:

- Hybrid Circuits
- High Impedance Load Resistors
- Low Noise, High Gain Feedback Resistors
- Low Current Biological & Medical Instrumentation
- Photon Infrared Detectors
- Piezoelectric Accelerometers
- Hydrophone Preamplifiers
- Extremely Low Noise Cryogenically Cooled First Stage Detection Circuits
- Electret Microphones
- Telecommunications Line Station Monitoring

Dimensions	L	W	H
Inches	0.055	0.028	0.015
(Tolerance +/-)	0.005	0.003	0.003
Millimeters	1.40	0.71	0.38
(Tolerance +/-)	0.13	0.08	0.08

### SPECIFICATIONS

Value / Tolerance: ..... 1X10<sup>6</sup> to 9X10<sup>9</sup> Ω ±5% ±10% ±20% ±30%  
 1X10<sup>10</sup> to 1X10<sup>11</sup> Ω ±10% ±20% ±30%  
 2X10<sup>11</sup> to 1X10<sup>12</sup> Ω ±20% ±30%

*Tighter tolerances available on a "Best Efforts" basis*

Noise figure, 1V bias, noise above thermal (Johnson) noise level: ..... 0.5 dB  
 Operating Voltage Range (Recommended): ..... 0 to 1 Volt  
 Maximum Operating Voltage: ..... to 60 Volts  
 Operating Temperature: ..... -270°C to +200°C  
 (3K to 473K)

Resistors with intermediate values are available. Resistors below 1X10<sup>6</sup> as well as resistors beyond 1X10<sup>12</sup> are also available (special order).

RoHS compliant resistors (Model 114R) are available in certain values. Contact ELTEC for further information.

**Note:** Each resistor is measured at 1 VDC @ 25°C. Testing at other voltages is available on special order.

**NOTICE:** The information provided herein is believed to be reliable. However, ELTEC Instruments, Inc. assumes no responsibility for inaccuracies or omissions. Due to industry components being incorporated into ELTEC's devices and ELTEC continually striving for product improvement, specifications may change without notice.



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